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| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/566,261 | TANAKA ET AL. | |
| | Examiner | Art Unit | |
| | Stephen F. Gerrity | 3721 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE and amendment filed 11 July 2007.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>See Continuation Sheet</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 1/30/06, 2/5/07, 3/1/07, 5/15/07, 8/27/07.

EXAMINER'S AMENDMENT

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 July 2007 has been entered.

Information Disclosure Statement

2. Receipt is acknowledged of an Information Disclosure Statement, filed 27 August 2007, which has been placed of record in the file. An initialed, signed and dated copy of the PTO-1449 form is attached to this Office action.

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

4. Authorization for this examiner's amendment was given in a telephone interview with Mr. Arthur Antonelli (applicant's representative) on 30 August 2007.

5. The application has been amended as follows:

In the claims:

Rewrite claims 1 and 6 as follows:

1. A gas combustion type impact tool comprising:
 - a combustion chamber that comprises an upper wall and an adjacent side wall;
 - a driving cylinder;
 - a driving piston opposite the upper wall, held in the driving cylinder and driven by an exertion of a combustion gas pressure occurring when a gaseous mixture including a combustible gas and air is burnt in the combustion chamber;
 - an injection nozzle formed to face an interior of the combustion chamber and injecting the combustible gas into the combustion chamber;
 - a rotary fan for mixing the combustible gas supplied into the combustion chamber and the air in the combustion chamber;
 - an ignition device provided in the combustion chamber and igniting the gaseous mixture in the combustion chamber; and

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a vortex generator, provided on the upper wall on an upstream side of the injection nozzle in an air flow generated in the combustion chamber by the rotary fan, for generating a vortex near the injection nozzle in the combustion chamber so as to promote a mixing of the combustible gas and the air, and the vortex generator located between the injection nozzle and the rotary fan.

6. A gas combustion type impact tool, comprising:

a combustion chamber that comprises an upper wall;

a driving cylinder;

a driving piston held in the driving cylinder and driven by an exertion of a combustion gas pressure occurring when a gaseous mixture including a combustible gas and air is burnt in the combustion chamber;

an injection nozzle formed to face an interior of the combustion chamber and injecting the combustible gas into the combustion chamber;

a rotary fan for mixing the combustible gas supplied into the combustion chamber and the air in the combustion chamber;

an ignition device provided in the combustion chamber and igniting the gaseous mixture in the combustion chamber; and

a retention generator, provided on the upper wall of the combustion chamber, the retention generator extending radially outward along the upper wall from a location proximate a downstream side of the ignition device in an air flow generated in an interior of the combustion chamber by the rotary fan, for generating a retention of the gaseous

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mixture mixed by the rotary fan near the ignition device, and the retention generator located between the ignition device and the rotary fan.

Explanation for Examiner's Amendment

6. Claims 1 and 6 have been amended so that the claims structural define over the prior art, in particular, the Nishikawa et al. reference (US 6,695,195) as set forth in the previous Office action. The subject matter of the claims now sets forth structural limitations which are not shown or suggested by the prior art.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen F. Gerrity whose telephone number is 571-272-4460. The examiner can normally be reached on Monday - Friday from 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen F. Gerrity/
Primary Examiner
Art Unit 3721

31 August 2007